

**Amendments to the Drawings:**

Please add new Figure 3. (New Figure 3 is the diagrammatic illustration which has been deleted at page 16 beginning at line 13 of the specification.)

Attachment: New Sheet

REMARKS

Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

Claims 1-5 and 7-15 were pending. Claim 1 has been amended, in part, to incorporate the language of claim 2. Support for amended claim 1 is found, for example, in claim 2; at page 12, lines 8-23; and at pages 25-28 (Examples 2-5) of the subject application. Claim 2 has been cancelled in view of the incorporation of claim 2 into claim 1. Claims 7, 9 and 10 have been amended to delete reference to now cancelled claim 2. The specification has been amended to delete the hyperlink at page 17. The specification has also been amended to remove the diagrammatic illustration at page 16 and move said diagrammatic illustration to new Figure 3, which is submitted herewith. In view of the addition of Figure 3, the Brief Description of Drawings section has been amended. No new matter has been added by these amendments. Therefore, claims 1, 3-5 and 7-15 as amended are now pending in the subject application.

As a preliminary matter, the PTO records of the Information Disclosure Statement (IDS) filed July 13, 2004 are said to be incomplete in so far as the paper listing the references cited is missing. Applicants submit herewith copies of that paper as filed July 13, 2004 and the return receipt postcard stamped by the PTO. The Examiner is requested to make all the references disclosed in the IDS of record and return an initialed copy of the paper listing the references to the undersigned representative.

In the Office Action dated December 20, 2006, the specification was objected on two grounds. First, page 17 of the specification as filed contained a hyperlink. The specification has been amended to remove the hyperlink from page 17. Second, page 16 of the specification as filed contained a depiction that is considered more appropriate as a figure. The specification has been amended to delete the depiction from page 16. In view of the deletion, new Figure 3 (which contains the depiction) has been added and the Brief Description of the Drawings section amended to include reference to Figure 3.

Therefore, it is believed that the objections to the specification have been obviated. Reconsideration and withdrawal of these objections are respectfully requested.

In the Office Action, claims 1-5 and 7-9 were rejected under 35 U.S.C. § 102(b) as lacking novelty over Smith et al. (Proc. Natl. Acad. Sci. USA 94:6847-6850, 1997). This rejection is respectfully traversed.

As set forth above, claim 1 has been amended. Claims 3-5 and 7-9 depend directly or indirectly from claim 1. Claim 1 as amended is directed to use of a mismatch recognition protein in solution, followed by a separation of double-stranded oligonucleotides containing at least one mismatched base (that has interacted with the protein) from double-stranded oligonucleotides that have not interacted with the protein. The separation step (step (b)) is performed using a solid matrix that possesses high affinity for binding of protein (and thus double-stranded oligonucleotides that have interacted with mismatch recognition protein) and low affinity for binding of double-stranded oligonucleotides (and thus double-stranded oligonucleotides that have not interacted with mismatch recognition protein).

Smith et al. does not teach the use of a solid matrix that possesses high affinity for binding of protein and low affinity for binding of double-stranded oligonucleotides. Accordingly, the cited reference is missing an element of amended claim 1 and claims 3-5 and 7-9 which depend therefrom.

In order for a claim to be anticipated, each and every element as set forth in the claim must be found in a single prior art reference (M.P.E.P. § 2131 at 2100-67). As described above, Smith et al. does not teach each and every element of amended claim 1 (and therefore nor in claims 3-5 and 7-9 which depend therefrom).

Therefore, it is believed that the rejection of claims 1-5 and 7-9 under 35 U.S.C. § 102(b) over Smith et al. has been overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

In the Office Action, claims 10 and 13-15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Smith et al. (Proc. Natl. Acad. Sci. USA 94:6847-6850, 1997) in view of Burner et al. (U.S. Pat. No. 5,935,788). This rejection is respectfully traversed.

Claims 10 and 13-15 depend directly or indirectly from claim 1. As described in detail above, Smith et al. does not teach the subject matter of step (b) of amended claim 1. Thus, every element of amended claim 1 is not taught by Smith et al., and accordingly not every element of claims 10 and 13-15 which depend from claim 1. Burmer et al., taken alone or in combination with Smith et al., fails to remedy the deficiency of Smith et al.

The combination of Smith et al. and Burmer et al. fails to yield Applicants' invention as set forth in claims 10 and 13-15 as depending from amended claim 1. Applicants respectfully submit that the Patent Office has failed to establish a *prima facie* case for obviousness.

Therefore, it is believed that the rejection of claims 10 and 13-15 under 35 U.S.C. § 103(a) over Smith et al. and Burmer et al. has been overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

In the Office Action, claim 11 was rejected under 35 U.S.C. § 103(a) as unpatentable over Smith et al. (Proc. Natl. Acad. Sci. USA 94:6847-6850, 1997) in view of Burmer et al. (U.S. Pat. No. 5,935,788) and further in view of Yeung et al. (PCT Application No. WO 97/46701). This rejection is respectfully traversed.

Claim 11 depends from claim 10, which in turn depends from amended claim 1. As described in detail above, Smith et al. does not teach the subject matter of step (b) of amended claim 1. Thus, every element of amended claim 1 is not taught by Smith et al., and accordingly not every element of claim 11 which depends ultimately from claim 1. Burmer et al., taken alone or in combination with Smith et al., fails to remedy the deficiency. Further, Yeung et al., taken alone or in combination with Smith et al. or Burmer et al. or both, fails to remedy the deficiency.

The combination of Smith et al., Burmer et al. and Yeung et al. fails to yield Applicants' invention as set forth in claim 11 as depending from amended claim 1. Applicants respectfully submit that the Patent Office has failed to establish a *prima facie* case for obviousness.

Therefore, it is believed that the rejection of claim 11 over Smith et al., Burmer et al. and Yeung et al. has been overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

In the Office Action, claim 12 was rejected under 35 U.S.C. § 103(a) as unpatentable over Smith et al. (Proc. Natl. Acad. Sci. USA 94:6847-6850, 1997) in view of Burmer et al. (U.S. Pat. No. 5,935,788) and further in view of Yanagihara (Proc. Natl. Acad. Sci. USA 99:11317-11321, 2002). This rejection is respectfully traversed.

Claim 12 depends from claim 10, which in turn depends from amended claim 1. As described in detail above, Smith et al. does not teach the subject matter of step (b) of amended claim 1. Thus, every element of amended claim 1 is not taught by Smith et al., and accordingly not every element of claim 12 which depends ultimately from claim 1. Burmer et al., taken alone or in combination with Smith et al., fails to remedy the deficiency. Further, Yanagihara et al., taken alone or in combination with Smith et al. or Burmer et al. or both, fails to remedy the deficiency.

The combination of Smith et al., Burmer et al. and Yanagihara et al. fails to yield Applicants' invention as set forth in claim 12 as depending from amended claim 1. Applicants respectfully submit that the Patent Office has failed to establish a *prima facie* case for obviousness.

Therefore, it is believed that the rejection of claim 12 over Smith et al., Burmer et al. and Yanagihara et al. has been overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

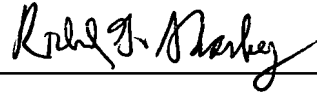
Therefore, in light of the amendments and remarks set forth above, Applicants believe all the Examiner's objections and rejections have been obviated and overcome, respectively. Reconsideration and allowance of the pending claims (1, 3-5 and 7-15) are respectfully requested. If there is any further matter requiring attention prior to allowance of the subject application, the Examiner is respectfully requested to contact the undersigned representative (at 206-622-4900) to resolve the matter.

Reply & Amendment to Office Action dated December 20, 2006

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



---

Richard G. Sharkey, Ph.D.

Registration No. 32,629

Customer No. 00500

Enclosures:

Extension of Time Request

Figure 3 (New Sheet)

Copy of IDS filed 07/13/04 (2 sheets)

Copy of Stamped Return Receipt Postcard